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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.        | CONFIRMATION NO.       |
|--|-------------|----------------------|----------------------------|------------------------|
| 10/665,560   | 09/22/2003  | Kent D. Parkins      | CRNC.107552                | 6167                   |
| 46169 7590 11/16/2007<br>SHOOK, HARDY & BACON L.L.P.<br>Intellectual Property Department<br>2555 GRAND BOULEVARD<br>KANSAS CITY, MO 64108-2613 |             |                      | EXAMINER<br>NGUYEN, TRAN N |                        |
|  |             |                      | ART UNIT<br>3626           | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>11/16/2007    | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/665,560

Applicant(s)

PARKINS ET AL.

Examiner

Tran N. Nguyen

Art Unit

3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Notice to Applicant***

This communication is in response to the communication filed 09/22/2003.

Pending claim(s): 1-45.

***Priority***

Acknowledgment is made of Applicant's claim for priority to application 60498283 filed 08/28/2003.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim(s) 4, 19 is/are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 4, Examiner cannot ascertain the meaning of "autocorrelation" when read in light of the specification.

For purposes of applying prior art, Examiner interprets this limitation to recite "automated processing".

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As per the set of claim(s): 19, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 4, respectively, and incorporated herein.

Additional clarification is requested.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-15, 30-45 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, this claim recites "a system" comprising "an input interface", "a set of rules", and "a data enhancement layer". When read in light of the specification, it appears that all these limitations are purely algorithmic in nature, and are therefore considered to be software *per se*. See MPEP 2106.01(I).

All claims dependent thereon, namely claims 2-15, fail to remedy the deficiencies, and are therefore rejected for at least the same rationale as applied to parent claim 1 above, and incorporated herein.

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As per claim 30, this claim recites “a system” comprising “input means”, rules means”, and “data enhancement means”. When read in light of the specification, it appears that all these limitations are purely algorithmic in nature, and are therefore considered to be software *per se*. See MPEP 2106.01(I).

All claims dependent thereon, namely claims 31-37, fail to remedy the deficiencies, and are therefore rejected for at least the same rationale as applied to parent claim 1 above, and incorporated herein.

As per claim 38, this claim recites “an enhanced data grouping” comprising “clinically relevant source data” and “one extended dimension”. When read in light of the specification, this claim appears to recite data structure *per se*. See MPEP 2106.01.

All claims dependent thereon, namely claims 39-42, fail to remedy the deficiencies, and are therefore rejected for at least the same rationale as applied to parent claim 1 above, and incorporated herein.

As per claims 43-45, these claims are rejected for at least the same rationale as applied to the rejection of claims 38-42 above, and incorporated herein.

Additional clarification is requested.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim(s) 1-11, 16-25, 30-35, 38-40 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Hearst ( Cat-a-Cone: an interactive interface for specifying searches and viewing retrieval results using a large category hierarchy).

As per claim 1, Hearst teaches a system capable of grouping and displaying documents according to the orthogonal semantic attributes (It is noted that grouping documents according to the orthogonal semantic attributes is considered to be "an enhanced data grouping") (page 249 column 2 paragraph 5 to page 250 column 1 paragraph 1), comprising:

(a) an interface (page 246 column 1 paragraph 1) capable of searching and browsing (It is noted that searching and browsing are considered to be "receiving") a plurality of biomedical articles (It is noted that the biomedical articles are considered to be "clinically relevant source data") (page 246 column 1 paragraph 2);

(b) a plurality of Boolean queries painted over a combination of category labels and free text (It is noted that Boolean queries are considered to be "a set of rules") (page 246 column 1 paragraph 1);

(c) software means capable of displaying search results for browsing based on the plurality of Boolean queries, wherein the results are displayed in 3D (page 246 column 1 paragraph 1, page 248 Figure 1).

As per claim 2, Hearst teaches MEDLINE (It is noted that MEDLINE is considered to be "data generated by... a health care provider") (page 246 column 1 paragraph 2).

Insofar as "a hospital", "an insurer", and "a laboratory" are concerned, Hearst need not teach these limitations in view of "at least one of".

As per claim 3, Hearst teaches that allowing the user to enter search queries (page 251 column 1 paragraph 2 and throughout).

As per claim 4, Hearst teaches Medical Subject Headings (It is noted that Medical Subject Headings are considered to be "autocorrelation") (page 246 column 1 paragraph 2).

As per claim 5, Hearst teaches software means capable of generating the search results for display (page 248 Figure 1).

As per claim 6, Hearst teaches displaying the abstract of a document (It is noted that displaying document data is considered to be "an extension") (page 248 Figure 1).

As per claim 7, Hearst teaches a plurality of dimensions associated with the search query (page 248 Figure 1).

As per claim 8, Hearst teaches expanding or pruning the search results (It is noted that expanding or pruning is considered to be "a recombination" (page 251 column 1 paragraph 3).

As per claim 9, Hearst teaches a plurality of dimensions for the search result (page 251 column 2 paragraph 2).

As per claims 10-11, Hearst teaches hierarchy data (page 252 column 1 paragraph 1-2) and high dimensional data (page 252 column 2 paragraph 3).

As per the set of claim(s): 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 30, 31, 32, 33, 34, 35, 38, 39, 40, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 1, 6, 7, 8, 9, 10, 8, 9, 10, respectively, and incorporated herein.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim(s) 12-15, 26-29, 36-37, 41-45 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Hearst in view of Official Notice.

As per claims 12-14, Hearst does not teach "a transaction data store" and "a datamart".

Official Notice is taken that a database capable of storing queries and search results is old and well established in the art of database.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of the Official Notice within the embodiment of Hearst with the motivation of saving searches for additional user refinement (Hearst; page 251 column 1 paragraph 3).

As per claim 15, Hearst teaches standard query language, i.e. "and" (page 248 paragraph 1).

As per the set of claim(s): 26, 27, 28, 29, 36, 37, 41, 42, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 12, 13, 14, 15, 13, 14, 13, 14, respectively, and incorporated herein.

As per claim 43, Hearst teaches a system capable of grouping and displaying documents according to the orthogonal semantic attributes (page 249 column 2 paragraph 5 to page 250 column 1 paragraph 1), comprising:

(a) software means capable of searching a plurality of biomedical articles (page 246 column 1 paragraph 2) and displaying the search results for browsing based on the plurality of Boolean queries, wherein the results are displayed in 3D (page 246 column 1 paragraph 1, page 248 Figure 1);

(b) a plurality of dimensions associated with the search query (page 248 Figure 1), wherein the user is able to expand or prune the search results (page 251 column 1 paragraph 3).

Hearst does not teach "a datamart".

Official Notice is taken that a database capable of storing queries and search results is old and well established in the art of database.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of the Official Notice within the embodiment of Hearst with the motivation of saving searches for additional user refinement (Hearst; page 251 column 1 paragraph 3).

As per claim 44, Hearst teaches standard query language, i.e. "and" (page 248 paragraph 1).

As per claim 45, Hearst teaches a user interface (page 246 column 1 paragraph 1) capable of interacting with online data (page 246 column 1 paragraph 2).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Spoerri (InfoCrystal: A visual tool for information retrieval) teaches a method of constructing multidimensional, combinatorial queries.


Light (5831631) teaches an iconic graph capable of displaying search result relevance on a plurality of dimensions (Figure 4-5).


Any inquiry concerning this communication or earlier communications from Examiner should be directed to Tran N. Nguyen (Ken) whose telephone number is (571) 270-1310. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:00 pm, Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, Examiner's Supervisor, Joseph Thomas can be reached on (571) 272-6776.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TN   
11/13/2007

  
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